Remarks

Summary of Rejections and Objections

Claims 1-2, 4, 7-15, and 17-34 stand rejected under 35 U.S.C. 102(b)/103(a) as being anticipated by, or in the alternative, obvious over Armanie, US 6,113,711. (Office Action, ¶ 8)

Claims 1-2, 15, 17, 19-24, 26, 28, 30, 32-33 stand rejected under 35 U.S.C. 103(a) as being obvious over Sugio in light of Armanie, US 6,113,711. (Office Action ¶ 10)

Claims 1-2, 15, 17-18, 20-26, 28, 30, 32-33 stand rejected under 35 U.S.C. 102(b)/103(a) as being anticipated by, or in the alternative, obvious over Liu, US Pub. 2001/00200501. (Office Action ¶12).

Claims 1-2, 15, 17-18, 20-26, 28, 30, 32-33 stand rejected under 35 U.S.C. 102(e) as being anticipated by, or in the alternative, obvious over Liu, US 6,325,869. (Office Action ¶ 14).

Claims 1-2, 15, 17-18, 20-26, 28, 30, 32-33 stand rejected under 35 U.S.C. 102(a) as being anticipated by, or in the alternative, obvious over Karabin, US 5,863,359.

(Office Action §16).

Claims 1-2, 15, 17, 20-23, 28, and 30 stand rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by, or in the alternative, obvious over Takemoto, US Pub. 2002/0043460. (Office Action ¶ 18).

Claims 1-2, 15, 17, 20-23, 28, 30, 30 and 33 stand rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by, or in the alternative, obvious over Yoshihara, US Pub. 2002/0014287 or Kawaii. (Office Action ¶20).

Claims 1-2, 15, 17, 20-24, 28, 30, and 32-33 stand rejected under 35 U.S.C. 102(a, b)/103(a) as being anticipated by, or in the alternative, obvious over Yamashita, US 6,231,995 or Yamashita JP Pub.11-071624. (Office Action ¶ 22).

Claims 3, 5-6 and 16 were objected to as being dependent upon rejected claims, but were determined to be allowable if rewritten in independent form.

Legal Precedent Regarding Sections 102 and 103

Applicant's previous responses have addressed the legal precedent for rejections based on §102/103, and this subject matter is incorporated herein by reference.

Of particular relevance here, however, is the concept of inherency. The examiner has based the multiple rejections on the theory that there is an inherent disclosure made by the prior art references, not withstanding the fact that said references are silent on the issue of, inter alia, there extrusions possess an area where there is a substantially increased. The fact that a certain result or characteristic <u>may</u> occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re*

Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' "In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) (The claims were drawn to a disposable diaper having three fastening elements. The reference disclosed two fastening elements that could perform the same function as the three fastening elements in the claims. The court construed the claims to require three separate elements and held that the reference did not disclose a separate third fastening element, either expressly or inherently.).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) (Applicant's invention was directed to a biaxially oriented, flexible dilation catheter balloon (a tube which expands upon inflation) used, for example, in clearing the blood vessels of heart patients). The examiner applied a U.S. patent to Schjeldahl which disclosed injection molding a tubular preform and then injecting air into the preform to expand it against a mold (blow molding). The reference did not directly state that the end

product balloon was biaxially oriented. It did disclose that the balloon was "formed from a thin flexible inelastic, high tensile strength, biaxially oriented synthetic plastic material." *Id.* at 1462 (emphasis in original). The examiner argued that Schjeldahl's balloon was inherently biaxially oriented. The Board reversed on the basis that the examiner did not provide objective evidence or cogent technical reasoning to support the conclusion of inherency.).

In In re Schreiber, 128 F.3d 1473, 44 USPQ2d 1429 (Fed. Cir. 1997), the court affirmed a finding that a prior patent to a conical spout used primarily to dispense oil from an oil can inherently performed the functions recited in applicant's claim to a conical container top for dispensing popped popcorn. The examiner had asserted inherency based on the structural similarity between the patented spout and applicant's disclosed top, i.e., both structures had the same general shape. The court stated:

[N]othing in Schreiber's [applicant's] claim suggests that Schreiber's container is of a 'different shape' than Harz's [patent]. In fact, [] an embodiment according to Harz (Fig. 5) and the embodiment depicted in Fig. 1 of Schreiber's application have the same general shape. For that reason, the examiner was justified in concluding that the opening of a conically shaped top as disclosed by Harz is inherently of a size sufficient to 'allow [] several kernels of popped popcorn to pass through at the same time' and that the taper of Harz's conically shaped top is inherently of such a shape 'as to by itself jam up the popped popcorn before the end of the cone and permit the dispensing of only a few kernels at a shake of a package when the top is mounted to the container.' The examiner therefore

correctly found that Harz established a prima facie case of anticipation. *In re Schreiber*, 128 F.3d at 1478, 44 USPQ2d at 1432

Response to the Rejections of Paragraphs Nine to Twenty-Seven

The claims are presently rejected based on various references which, according to the rejection, inherently must possess the axisymetrical fiber texture presently claimed. This assertion misapprehends the requirements for the office to base a rejection on inherency. "Inherency" is shown where the reference necessarily possesses the property claimed, not possibly possesses. Here, the examiner has provided no rationale as to why the prior art necessarily would possess the microstructure produced by and possessed by the claimed inventive extrusions.

In paragraph 8 of the office action, Claims 1-2, 4, 7-15, and 17-34 are rejected under 35 U.S.C. 102(b)/103(a) as being anticipated by, or in the alternative, obvious over Armanic, US 6,113,711. The examiner has apparently equated Armanie's disclosure of a "tortuous path" to mean that Armanie would produce axisymetric fiber texturerefers to an angled die. However, this asymmetric form of metal flow would be expected to eliminate fiber texture in the extruded component.

Therefore, the assertion of inherency is unfounded by reasoning or disclosure; the reference does not (and cannot) disclose, suggest or otherwise make obvious extruded structural members with local geometries that have increased fiber texture. Withdrawal of this rejection is therefore requested.

In paragraph 10 of the office action, Claims 1-2, 15, 17, 19-24, 26, 28, 30, 32-33 are rejected under 35 U.S.C. 103(a) as being obvious over Sugio (JP publication 04-022508) in light of Armanic, US 6,113,711. Again, Armanic's disclosure of a "tortuous path" refers to the die angle, one that most likely produces asymmetric, not axisymetric, microstructure. It does not refer to local areas or geometries with increased fiber texture, and no one of ordinary skill would be motivated to modify Armanie based on Armanie's disclosure. Reliance on inherency to obviate this deficiency is therefore improper.

Nor does Sugio improve upon this deficiency. Sugio is apparently using a conventional, pre-extrusion homogenization and extrusion shapes that would not produce (nor would be understood to produce) a substantially unrecrystallized microstructure and increased fiber texture in local areas. Instead, Sugio is directed to reducing the strength difference between a thick part and a thin part of an extrusion by extruding through two molding holes so that the microstructures are identical throughout the component. Note, this is different than, and exclusive of, axisymetric fiber texture.

Sugio, like Armanie, simply does not teach, nor inherently possess, a local geometry with increased fiber texture in local areas. Withdrawal of this rejection is therefore requested.

In paragraph 12 of the office action, claims 1-2, 15, 17-18, 20-26, 28, 30, 32-33 are rejected under 35 U.S.C. 102(b)/103(a) as being anticipated by, or in the alternative, obvious over Liu, US Pub. 2001/00200501. Again, however, the teachings of the

reference itself indicate appear to exclude the possibility of Liu inherently possessing the supposedly inherent property.

Liu, et al., neither teaches, discloses or suggests to those of ordinary skill using local geometries to create areas of substantially unrecrystallized microstruture and increased amounts of fiber texture within an extruded product. Instead, Liu teaches extruding the product to produce an unrecrystallized microstructure. One of ordinary skill would moreover understand this to mean that the extruded product of Liu had a substantially unrecrystallized microstructure throughout, not that in an local area of the structure itself, there is an unrecrystallized microstructure and increased fiber texture. Withdrawal of this rejection is therefore requested.

In paragraph 14 of the office action, claims 1-2, 15, 17-18, 20-26, 28, 30, 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by, or in the alternative, obvious over Liu, US 6,325,869, based on the examiner's assertion of supposed inherent microstructural characteristics. However, the assumption of inherency is at odds with the Liu disclosure. One of ordinary skill would understand that Liu teaches that the extruded product have a substantially unrecrystallized microstructure throughout its structure, not in an area of the structure itself. Withdrawal of this rejection is therefore requested.

In paragraph 16 of the office action, claims 1-2, 15, 17-18, 20-26, 28, 30, 32-33 are rejected under 35 U.S.C. 102(a) as being anticipated by, or in the alternative, obvious over Karabin, US 5,863,359 and its supposed inherent properties. Nothing in the Karabin '359 patent teaches, discloses or suggests an extruded product having areas of

substantially unrecrystallized microstruture and increased amounts of fiber texture within local areas of the extruded structural member. Instead, Karabin teaches an alloy product that can be used for lower plate or stringer extrusions. Given the conventional stringer and plate geometries depicted in Fig. 1, one of ordinary skill would moreover understand this to mean that the extruded stringer products disclosed in the Karabin '359 patent have a substantially unrecrystallized microstructure throughout, not in local areas of the stringer or plate themselves. In otherwords, the disclosure of Karabin is at odds with the assertion regarding its supposed inherent properties. Withdrawal of this rejection is therefore requested.

In paragraph 18 of the office action, claims 1-2, 15, 17, 20-23, 28, and 30 stand rejected under 35 U.S.C. 102(c)/103(a) as being anticipated by, or in the alternative, obvious over Takemoto, US Pub. 2002/0043460 and its supposed inherent properties. However, although Takemoto teaches a valve device for a refrigeration system that may be made from extruded, 6xxx alloy, Takemoto is silent regarding increased fiber texture, nor does it follow from any part of the Takemoto disclosure that increased fiber texture would be present in an area within the extruded object. Withdrawal of this rejection is therefore requested.

In paragraph 20 of the office action claims 1-2, 15, 17, 20-23, 28, 30, 30 and 33 stand rejected under 35 U.S.C. 102(e)/103(a) as being anticipated by, or in the alternative, obvious over Yoshihara, US Pub. 2002/0014287, and its supposedly inherent properties of Fig. 1 of the application. This figure appears to show a square structure, i.e. one with

an aspect ratio of about 1, and the examiner has apparently assumed that this square structure would produce a localized substantially fiber textured microstructure somewhere within the extrusion. However, the figure is in fact depicting a hollow tube, square in diameter, but having a uniform wall thickness. This is at odds with the examiner's interpretation of the art, in that such a tube would be unlikely to have an area of unrecrystallized microstructure or fiber texture. Withdrawal of this rejection is therefore requested.

Finally, in paragraph 22 of the office action, claims 1-2, 15, 17, 20-24, 28, 30, and 32-33 stand rejected under 35 U.S.C. 102(a, b)/103(a) as being anticipated by, or in the alternative, obvious over Yamashita, US 6,231,995 (or Yamashita JP Pub.11-071624), along with the supposedly inherent property possessed by the extrusion depicted. Again, it is respectfully suggested that the examiner has misapprehended the teaching of Yamashita's Fig. 1, in that the structure depicted is a hollow tube, approximately square in diameter, but having a uniform wall thickness. The "ribs" referred to by the examiner are extensions of the wall and would not promote axisymetric fiber texture. Withdrawal of this rejection is therefore requested.

All of the rejections and objections in the office action having been traversed, withdrawal of the rejections under 35 USC 102 and 103 to all claims is respectfully requested.

It is respectfully submitted that the present application is in condition for allowance. If the Examiner would like to suggest changes of a formal nature to place this application in better condition for allowance, a telephone call to Applicants' undersigned attorney would be appreciated.

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